

vided with a bunch of silvery gray hairs. . . . From the eighth segment to the end of the body there is a broad black stripe. . . . Underside yellowish green . . .” I have omitted parts of the description which apply equally to *leucostigma*. Now in *leucostigma* the ground color is gray or “mouse color,” but the dorsal black band is edged by a wide yellow stripe. If this stripe be

absent or greatly reduced in *inornata*, as the description implies, it would give to the larva a very different appearance, “totally distinct” perhaps as Mr. Beutenmüller says; but I cannot convince myself that we have to do with more than a variety or possibly a local race of *leucostigma*. The yellow markings are variable in *vetusta* and *antiqua*.

Synopsis of the Larvae of Notolophus.

Head yellow, colors in general pale	<i>definita</i>
Head red.	
A distinct yellow subdorsal band	<i>leucostigma</i>
Gray marks predominant, the yellow band not noticeable	var. <i>inornata</i>
Head black.	
Warts crimson, brush-like tufts dark along the crest, the yellow lines along the sides broken into spots.	
One black tuft in young larva	<i>vetusta</i>
Two black tufts in young larva	var. <i>cana</i> *
Warts orange, brush tufts unicolorous, yellow or white, side lines usually continuous.	
A lateral black hair-pencil from joint 6	<i>antiqua</i>
No lateral black pencil	var. <i>badia</i> *

NOTES ON THE ACRIDIDAE OF NEW ENGLAND.—II. TRYXALINAE.—II.

BY ALBERT P. MORSE, WELLESLEY, MASS.

5. PSEUDOPOMALA gen. nov.

Type: *Opomala brachyptera* Scdd.
This species belongs to a genus not tabulated by Brunner in his Revision which is allied to *Truxalis* as defined

by Stål (= *Metaleptea* Brunner, Rev. p. 118), and in the absence of adequate description of structural characters and being the generic type a somewhat full description is appended.

In my preliminary list I referred this

* I regret that the rule of priority prevents giving the specific position to the more generalized form

species to the Opomalinae, as its generic title indicated. But it is not an Opomala, nor does it belong to that group. The prosternum is tuberculate, it is true, but to a less extent than in Mecostethus, while the presence of a highly developed rasp on the hind femora shows conclusively that it belongs to the Tryxalinae.

6. *Pseudopomala brachyptera*

Scudd. Figs. 6, 6a, 6b.

Opomala brachyptera. Scudler, 454,—1862.

Opomala brachyptera. Thomas, 63. Fernald, 35. Morse, 13. 106. Reutenmüller, 291.

Body slender, nearly linear. Antennae ensiform, equal (♀) or one and a half times (♂) as long as head and pronotum. Head conic; its length on top about three-quarters of pronotum. Crown horizontal (♀) or slightly ascending (♂). Vertex laminate, extending in front of eyes as long (♀) or longer (♂) than its width; its anterior margin parabolic; a broad-based median ridge, well-developed anteriorly, disappearing posteriorly opposite front border of eyes, curving slightly downward in front to run smoothly into the front margin of vertex; a shallow channel on each side of this from eye to front. Eyes longer than the vertex, about equal to the infra-ocular part of the cheeks at anterior border. Profile strongly reclinate, nearly straight, rounded above. Frontal costa slightly narrowed at union with vertex, shallowly sulcate, sides nearly parallel, slightly divergent below. Pronotum tricarinate; dorsum slightly tectiform, truncate before and behind, sides parallel; metazona two-thirds as long as prozona. Lateral lobes transverse, front margin nearly straight, retreating; lower

margin sinuate; hind margin concave below, the posterior angle about square. Prosternum bearing an obtuse tubercle. Metasternal lobes subcontiguous, ♂, not distant. ♀. Hind femora slender; of ♂ bearing a long stridulating rasp of fine teeth on the distal three-fourths of the basal half. Hind tibiae with 12 to 19 spines on exterior margin, apical spine not present. Tegmina usually abbreviated; of ♂ two-thirds or three-fourths as long as hind femora, rounded at apex, pellucid on distal two-thirds, the scapular area dilated, regularly reticulated with oblique veinlets. Tegmina of ♀ acuminate, opaque, scarcely reticulate, about as long as head and pronotum. Wings abortive, half as long as tegmina. Individuals occur with fully developed wings and tegmina nearly or quite reaching apex of hind femora; in these the apex of the tegmina is rounded. For this form the name *reversa* is here proposed. Genital segment of ♂ twice as long as wide; extending twice the length of the anal plate horizontally backward, lower margin slightly ascending, sides straight, extreme tip a little rounded, reaching or slightly passing the apex of hind femora. Ovipositor of ♀ short, scarcely exerted, external margins with a stout tooth, upper valves denticulate at base. The end of abdomen equals or (usually) passes the tip of hind femora a little, sometimes several mm.

Antenna.	Head + Pron.	Hind fem.	Teg.
♂ 9.5-11.5	7.3-8.6	13.5-15.5	9-12 3
♀ 8.5-10	6.6-11.4	14-19	7-12
Long-winged, teg.		Body.	
♂ 15.5-17		23.5-27	
♀ 18-22		27.5-29.5	

Light brown (♂) or pale drab (♀) with darker, brownish, longitudinal markings. Paler (♂ yellowish) below. Tips of antennae, hind tibiae, knee joints, and tibial spines with more or less fuscous. Tibial groove of hind femora greenish yellow. Tegmina of ♀ opaque, of ♂ with distal two-thirds pellucid. Tegmina and dorsum of head and pronotum sometimes

with small, irregularly disposed fuscous dots. Individuals sometimes have the longitudinal markings much more distinct

than usual, presenting a markedly fasciate appearance; this form is not uncommon at West Chop, M. V.

NEW SPECIES OF PAPIRIUS.

BY JUSTUS WATSON FOLSOM, CAMBRIDGE, MASS.

Papirius hagenii, n. sp.

Head translucent orange ochraceous, orange around mouth; eyes black; a few stiff, white bristles upon vertex and face. Antennae nearly as long as body, orange, becoming purplish on last two segments; basal segment naked; second four times the first in length, a few hairs distally; third equalling the second plus one-half the first, verticillate; terminal segment twice the basal, whorled as usual. Thorax yellow. Abdomen oval in dorsal aspect, dark purple, almost black, covering the sides and meeting the pale ventral surface with a well-defined but zig-zag margin; on posterior half of dorsum, a yellowish brown pattern, very variable (sometimes almost absent) but consisting fundamentally of a median elongated mark widening behind and one quarter the length of the abdomen, lying between four rounded triangular spots, the anterior pair of which are more or less three-lobed. These five spots may be separate, but the three anterior usually unite into a figure having a large posterior median lobe, three lateral lobes and a large anterior median sinus; the two posterior spots may unite to form a long, irregular crescent before the apex of the abdomen; abdomen with a few short, white bristles on apical half; many two or three times longer upon the yellow anal tubercle. Legs yellow, paler at base; tibia spiny; claws transparent, slender, rather straight, little curved inside; superior claw with a sharp tooth inside, one third from apex; second tooth obscure, in the middle; inferior claw two thirds the other in length, with one stout, knobbed tenent hair, twice as long,

fixed to its inner side except at the tip, which is free. Furcula (Tullberg's name for the spring) extending to mouth, stout, pale yellow at base, becoming white distally; manubrium (basal segment) over two thirds the dentes (middle segments) in length; dentes three times mucrones (apical segments), each dens with a row of long spines on either side; mucrones cylindrical, apex rounded, minutely serrate beneath; ventral abdominal surface with an oval, yellow swelling either side the manubrium and two similar but much larger ones placed obliquely and anteriorly. Average length, 1.3 mm.; maximum, 1.5 mm.

Described from over twenty specimens collected by me in October and early November, 1895, at Arlington, Mass. This active, uncommon species occurred in pine woods under damp, decaying twigs and needles.

Papirius pini, n. sp.

Chestnut brown, except for white claws, mucrones and bristles. Head paler; eyes black; a few short, stiff bristles upon a protuberance on vertex and down sides of face. Antennae four-fifths the length of body; basal segment stout, naked; second four times as long, a few long hairs distally; third equalling the first two, with distal half of seven false sub-segments and three less evident, swollen terminal ones; each sub-segment with a pair of hairs; a few hairs near base of third segment; fourth equal to basal, with short hairs. Abdomen ovate dorsally, dilated at sides; dorsum darker, with several long white bristles anteriorly